2. (Amended) A light emitting device, comprising:

a radiation source;

a luminescent material; and

a radiation scattering material located between the radiation source and the luminescent material;

wherein:

the radiation scattering material comprises radiation scattering particles located separately from the luminescent material;

a mean diameter of the radiation scattering particles is between $\lambda/3$ and $\lambda/2$, where λ is a first peak emission wavelength of the radiation source;

the radiation source comprises a light emitting diode or a laser diode emitting radiation having the first peak emission wavelength; and

the luminescent material comprises a phosphor which emits radiation having a second peak wavelength in response to incident radiation source radiation.

7. (Amended) A light emitting device, comprising:

a radiation source;

a luminescent material; and

a radiation scattering material located between the radiation source and the luminescent material;

wherein:

the radiation scattering material comprises radiation scattering particles located separately from the luminescent material;

the radiation source comprises a light emitting diode or a laser diode emitting radiation having a first peak emission wavelength; and

the luminescent material comprises an organic dye which emits radiation having a second peak wavelength in response to incident radiation source radiation.

14. (Amended) A light emitting device, comprising:

a radiation source;

a luminescent material;

a radiation scattering material located between the radiation source and the luminescent material; and

a package supporting the radiation source;

wherein:

the radiation scattering material comprises radiation scattering particles located separately from the luminescent material;

the radiation source comprises a light emitting diode emitting radiation having a first peak emission wavelength;

the luminescent material comprises a phosphor which emits radiation having a second peak wavelength in response to incident radiation source radiation;

the radiation scattering material comprises the radiation scattering particles located in a carrier medium comprising a transmissive body and a light or UV radiation scattering particle layer located on sidewalls of a reflector cup portion of the package containing the light emitting diode; and

the radiation scattering particles in the carrier medium are located above the light emitting diode and the luminescent material is located above the radiation scattering particles in the carrier medium.

15. (Amended) The device of claim 14, wherein the radiation scattering material comprises all three of:

a) at least one light or UV radiation scattering particle layer in a glass passivation layer directly over the light emitting diode;

b) light or UV radiation scattering particles in a silicone layer over the light emitting diode or over and on sides of the light emitting diode; and

c) the light or UV radiation scattering particle layer on the sidewalls of the reflector cup portion of the package containing the light emitting diode.

16. (Amended) A light emitting device, comprising:

a radiation source;

a luminescent material; and

a radiation scattering material located between the radiation source and the luminescent material;

wherein:

the radiation scattering material comprises radiation scattering particles located separately from the luminescent material;

the radiation source comprises a light emitting diode or a laser diode emitting radiation having a first peak emission wavelength;

the luminescent material comprises a phosphor which emits radiation having a second peak wavelength in response to incident radiation source radiation; and

the radiation scattering particles are located in a carrier medium comprising a transmissive body and the radiation scattering particles comprise at least two layers of TiO_2 particles in about a 1 micron to about a 2 micron thick silica layer arranged to achieve photonic crystal effects.

18. (Amended) The device of claim 2, wherein the radiation scattering particles scatter at least 50% more radiation source radiation than luminescent material radiation.

19. (Amended) The device of claim 2, wherein the radiation scattering material does not luminesce and the luminescent material does not substantially scatter light or UV radiation.

20. (Amended) The device of claim 19, wherein the luminescent material comprises a nanocrystalline phosphor.

32. (Twice Amended) A method of generating white light from a light emitting device, comprising a light emitting diode, a phosphor luminescent material and a radiation scattering material located between the light emitting diode and the luminescent material, wherein the radiation scattering material comprises radiation scattering particles located separately from the luminescent material, and a mean diameter of the radiation scattering particles is between $\lambda/3$ and $\lambda/2$, where λ is a first peak emission wavelength of the radiation source;

the method comprising:

supplying power to the light emitting diode;

generating a directional radiation comprising blue light or ultraviolet radiation having the first peak emission wavelength;

passing the directional radiation through the radiation scattering material to diffuse the directional radiation in a plurality of directions;

providing the diffuse radiation comprising blue light or ultraviolet radiation onto the luminescent material; and

generating white light by emitting radiation having a second peak wavelength from the luminescent material.